

Application No. 10/715,490  
Reply to Office Action of May 20, 2005

Patent  
Attorney Docket No. 96493-2

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### II. REMARKS/ARGUMENTS

#### A. Amendments to the Claims

The application now contains 26 claims.

Claims 1, 11, 12, 16, 22 and 23 have been amended in order to better define the subject matter being claimed.

Claims 2-6, 8-10, 12-15, 17-19 and 25 remain the same.

Claims 7, 20, 21 and 24 have been cancelled from the present application without prejudice.

Claims 26-30 have been added to the present application to better define the subject matter for which protection is sought. Support for new claims 26-30 can be found in the specification as originally filed. No new matter has been added under the current amendment.

#### B. Statements of Rejection under 35 USC §103(a) and Reply

##### i) Rejection under Burress in view of Nelson

In the Office Action, the Examiner has rejected all of claims 1-25 under 35 USC §103(a) as being unpatentable over U.S. Patent 1,628,651 (hereafter referred to as Burress) in view of U.S. Patent 6,179,517 (hereafter referred to as Nelson).

Application No. 10/715,490  
Reply to Office Action of May 20, 2005

Patent  
Attorney Docket No. 86493-2

For the reasons presented below, the Applicant respectfully traverses the Examiner's rejection, and submits that claims 1- 30, as they currently stand, are in allowable form.

## BEST AVAILABLE COPY

### Claim 1

The Examiner's attention is respectfully directed towards the following limitation of independent claim 1.

A traffic-signalling device suitable for redirecting oncoming traffic, said traffic-signalling device comprising:

- a moveable member suitable for attachment to a support, said moveable member being formed of at least two substantially identical modular components, said moveable member being operative to move between a first position and a second position, wherein when said moveable member is in said second position said traffic-signalling device is operative to redirect oncoming traffic;
- a solar-powered drive system for causing said moveable member to move between said first position and said second position.

The Applicant respectfully submits that neither of the references cited by the Examiner disclose, teach or suggest the above-emphasized limitations of amended claim 1. More specifically, neither Burress nor Nelson disclose a traffic-signalling device comprising a moveable member "formed of at least two substantially identical modular components" for "redirecting oncoming traffic".

In the Office Action, the Examiner alleges that Burress discloses a device that is formed of one or more modular components (column 2, line 106 – column 3 line 17). The Applicant respectfully disagrees, and submits that the portion of Burress identified by the Examiner instead discloses a bar that is formed of a core 11 made of a resilient material and that is braced on its opposing sides by a series of aligned segments 12. Given that the core 11 is made of a single piece of material, the Applicant fails to appreciate how this construction can be considered "formed of at least two substantially identical modular components".

Application No. 10/715,480  
Reply to Office Action of May 20, 2005

Patent  
Attorney Docket No. 86493-2

The Applicant further submits that Nelson does not disclose a movable member "formed of at least two modular components" either.

Furthermore, the Applicant respectfully submits that neither of these references disclose a movable member "operative to redirect oncoming traffic" [emphasis added]. Instead, these references both disclose barriers for stopping oncoming traffic, or for barring access to traffic. More specifically, Nelson describes an "access control system" at column 1, line 8, for preventing access to a vehicle, and Burress discloses a barrier for restraining traffic from crossing a railroad at column 1, lines 4-5. As such, neither reference discloses a movable member for "redirecting" traffic.

Accordingly, the Applicant respectfully submits that the combination of Burress and Nelson fails to establish a *prima facie* case of obviousness as per §2142 of the MPEP, on the basis that the references do not teach the above emphasized limitations of amended claim 1 when taken either individually or in combination. Accordingly, the Applicant respectfully submits that independent claim 1 is in condition for allowance over the references cited. The Examiner is respectfully requested to withdraw his rejection to independent claim 1.

Claims 2-6 and 8-10 depend from independent claim 1, and therefore incorporate by reference all the limitations contained therein, including those identified above as being absent from both Burress and Nelson. Accordingly, the Applicant respectfully submits that claims 2-6 and 8-10 are also in condition for allowance as being dependent upon an allowable base claim. The Examiner is respectfully requested to withdraw his rejection to dependent claims 2-6 and 8-10.

Claim 11

**BEST AVAILABLE COPY**

Application No. 10/715,490  
Reply to Office Action of May 20, 2005

Patent  
Attorney Docket No. 86493-2

The Examiner's attention is respectfully directed towards the following limitation of independent claim 11.

A traffic-signalling system suitable for providing information to oncoming traffic, said traffic-signalling system comprising:

- a plurality of traffic-signalling devices, each traffic-signalling device comprising:
  - i) a moveable member suitable for attachment to a support, said moveable member being operative to move between a first position and a second position, wherein when said moveable member is in said second position said traffic-signalling device is operative to provide information to oncoming traffic;
  - ii) a drive system suitable for causing said moveable member to move between said first position and said second position;
  - iii) a solar powered control system suitable for receiving wireless signals for causing the activation of said drive system.

The Applicant respectfully submits that neither of the references cited by the Examiner disclose, teach or suggest the above-emphasized limitation of amended claim 11. More specifically, neither Burress nor Nelson disclose a traffic-signalling device comprising "a solar powered control system suitable for receiving wireless signals for causing the activation of said drive system".

Firstly, the Applicant respectfully submits that Burress does not disclose anything at all about solar power. As such, this reference does not disclose "a solar powered control system suitable for receiving wireless signals for causing the activation of said drive system".

Secondly, the Applicant respectfully submits that Nelson does not disclose this limitation either. More specifically, Nelson does not disclose a solar powered control system suitable for receiving wireless signals. Nelson simply discloses a "solar panel or trickle charger" that keeps a standby battery fully charged such that the battery power can cut in upon failure of a traditional power source. The Applicant respectfully submits that Nelson does not disclose that the microprocessor or microcontroller that controls the motor function is solar

**BEST AVAILABLE COPY**

Application No. 10/715,490  
Reply to Office Action of May 20, 2005

Patent  
Attorney Docket No. 86493-2

powered (i.e. receives power from the standby battery), nor Nelson does disclose that this microprocessor or microcontroller can receive wireless signals.

Accordingly, the Applicant respectfully submits that the combination of Burress and Nelson fails to establish a *prima facie* case of obviousness as per §2142 of the MPEP on the basis that the references do not teach the above emphasized limitation of amended claim 11 when taken either individually or in combination. Thus, the Applicant respectfully submits that independent claim 11 is in condition for allowance over the references cited. The Examiner is respectfully requested to withdraw his rejection to independent claim 11.

Claims 12-20 and 27-28 depend from independent claim 11, and therefore incorporate by reference all the limitations contained therein, including those identified above as being absent from both Burress and Nelson. Accordingly, the Applicant respectfully submits that claims 12-20 and 27-28 are also in condition for allowance as being dependent upon an allowable base claim and the Examiner is respectfully requested to withdraw his rejection to dependent claims 12-20.

Claim 23

The Examiner's attention is respectfully directed towards the following limitation of independent claim 23.

A traffic-signalling device suitable for providing information to oncoming traffic, said traffic-signalling device comprising:

- a moveable member suitable for attachment to a support, said moveable member being operative to move between a first position and a second position, wherein when said moveable member is in said second position said traffic-signalling device is operative to provide information to oncoming traffic;
- a drive system suitable for causing said moveable member to move between said first position and said second position
- a solar powered control system suitable for allowing said drive system to move said moveable member between said first position and said second position upon receipt of a remotely transmitted command signal.

Application No. 10/716,490  
Reply to Office Action of May 20, 2005

Patent  
Attorney Docket No. 86493-2

The Applicant respectfully submits that neither of the references cited by the Examiner disclose, teach or suggest the above-emphasized limitation of amended claim 23. More specifically, neither Burress nor Nelson disclose a traffic-signalling device comprising "a solar powered control system suitable for allowing said drive system to move said movable member between said first position and said second position upon receipt of a remotely transmitted command signal".

As mentioned above with respect to independent claim 11, Burress does not disclose anything about solar power. As such, Burress does not disclose "a solar powered control system suitable for allowing said drive system to move said movable member between said first position and said second position upon receipt of a remotely transmitted command signal".

The Applicant further submits that Nelson does not disclose this limitation either. Instead, as mentioned previously, Nelson simply discloses a "solar panel or trickle charger" that keeps a standby battery fully charged such that the battery power can cut in upon failure of a traditional power source. Nowhere does Nelson disclose a control system for receiving a remotely transmitted command signal, let alone the fact that such a control system could be solar powered.

Accordingly, the Applicant respectfully submits that the combination of Burress and Nelson fails to establish a *prima facie* case of obviousness as per §2142 of the MPEP on the basis that the references do not teach the above emphasized limitation of amended claim 23 when taken either individually or in combination. Accordingly, the Applicant respectfully submits that independent claim 23 is in condition for allowance over the references cited. The Examiner is respectfully requested to withdraw his rejection to independent claim 23.

Application No. 10/715,490  
Reply to Office Action of May 20, 2005

Patent  
Attorney Docket No. 86493-2

Claims 25 and 26 depend from independent claim 23, and therefore incorporate by reference all the limitations contained therein, including those identified above as being absent from both Burress and Nelson. Accordingly, the Applicant respectfully submits that claims 25 and 26 are also in condition for allowance as being dependent upon an allowable base claim and the Examiner is respectfully requested to withdraw his rejection to dependent claims 25 and 26.

Claims 29 & 30

For ease of reference, new claims 29 and 30 have been reproduced below:

A traffic-signalling device suitable for providing information to oncoming traffic, said traffic-signalling device comprising:

- a moveable member suitable for attachment to a support, said moveable member being operative to move between a first position and a second position, wherein when said moveable member is in said second position said traffic-signalling device is operative to provide information to oncoming traffic;
- a drive system suitable for causing said moveable member to move between said first position and said second position
- a solar powered control system suitable for:
  - i) allowing said drive system to move said moveable member between said first position and said second position, upon receipt of a remotely transmitted command signal;
  - ii) communicating over a wireless transmission link with a solar powered control system of at least one other traffic-signalling device.

A traffic-signalling system comprising:

- a plurality of movable barrier arms, each barrier arm in said plurality of barrier arms being operative to move between a first position and a second position, wherein when a barrier arm is in said second position said barrier arm forms a barrier to oncoming traffic;
- a plurality of solar powered drive systems, each barrier arm in said plurality of barrier arms being associated with a respective one of said plurality of solar powered drive systems, each solar powered drive system being suitable for causing a respective barrier arm to move between said first position and said second position;
- a plurality of solar powered control systems, each barrier arm in said plurality of barrier arms being associated with a respective one of said plurality of solar powered control systems;
- wherein at least one solar powered control system in said plurality of solar powered control systems is operative to receive over a cellular network a command signal conveying instructions to be implemented by said solar powered control system, said at least one solar powered

Application No. 10/715,490  
Reply to Office Action of May 20, 2005

Patent  
Attorney Docket No. 86493-2

control system being operative for conveying said command signal to other solar powered control systems in said plurality of solar powered control systems over a wireless communication link.

Although claims 29 and 30 have been newly added, and therefore not rejected by the Examiner in the Office Action, the Applicant respectfully submits that neither Burress nor Nelson disclose, teach or suggest the above-emphasized limitations of independent claims 29 and 30.

ii) Rejection under Burress in view of Nelson in further view of Massey

In the Office Action, the Examiner has rejected claims 9, 20, 21 and 24 under 35 USC §103(a) as being unpatentable over Burress in view of Nelson in further view of U.S. Patent 5,097,790 (hereafter referred to as Massey).

For the reasons presented below, the Applicant respectfully traverses the Examiner's rejection, and submits that claims 9, 20, 21 and 24 are in allowable form, as they currently stand.

Claim 9

Claim 9 is dependent upon independent claim 1, and as such incorporates by reference the following limitation which has already been found to be absent from Burress and Nelson.

a moveable member suitable for attachment to a support, said moveable member being formed of at least two substantially identical modular components,

The Applicant further submits that this limitation is also absent from Massey. More specifically, Massey does not disclose anything about a movable member being formed of at least two substantially identical modular components. Instead, the movable member disclosed by Massey is formed of an elongated arm 12 that



Application No. 10/715,490  
Reply to Office Action of May 20, 2005

Patent  
Attorney Docket No. 88493-2

comprises an intermediate section 52 and a free end section 54. Each of these sections is of a reduced periphery such as to reduce the overall weight of the arm and enhance its portability. Given that each section has a reduced periphery, and thus is different, the Applicant respectfully submits that the arm 12 disclosed by Massey is not formed of at least two substantially identical modular components.

As such, since none of the references cited by the Examiner disclose the above limitation of independent claim 1, and since claim 9 incorporates this limitation by reference, the Applicant respectfully submits that the Examiner has failed to establish a case of prima facie obviousness as per §2142 of the MPEP on the basis that the references cited do not teach all of the limitations of the claim when taken either individually or in combination. Accordingly, the Examiner is respectfully requested to withdraw his rejection to dependent claim 9.

Claims 20-21

The Applicant respectfully submits that claims 20-21 have been cancelled from the present application, and that their subject matter has been incorporated into independent claim 11.

The Applicant respectfully directs the Examiner's attention to the following limitation of independent claim 11, which has already been shown to be absent from both Burress and Nelson.

**a solar powered control system suitable for receiving wireless signals for causing the activation of said drive system.**

The Applicant further submits that this limitation is also absent from Massey. Nowhere does Massey disclose anything about solar power, and as such, Massey does not disclose the limitation of "a solar powered control system

Application No. 10/715,480  
Reply to Office Action of May 20, 2005

Patent  
Attorney Docket No. 88493-2

suitable for receiving wireless signals for causing the activation of said drive system".

Accordingly, since none of the references cited by the Examiner disclose the above emphasized limitation of independent claim 11, the Applicant respectfully submits that independent claim 11 is novel, non-obvious and in condition for allowance over the references cited by the Examiner.

Claim 24

The Applicant respectfully submits that claim 24 has been cancelled from the present application, and that its subject matter has been incorporated into independent claim 23.

The Applicant respectfully directs the Examiner's attention to the following limitation of independent claim 23, which has already been shown to be absent from both Burress and Nelson.

**a solar powered control system suitable for allowing said drive system to move said movable member between said first position and said second position upon receipt of a remotely transmitted command signal.**

The Applicant further submits that this limitation is also absent from Massey. Nowhere does Massey disclose anything about solar power, and as such, Massey does not disclose the limitation of "a solar powered control system suitable allowing said drive system to move said movable member...upon receipt of a remotely transmitted command signal".

Accordingly, since none of the references cited by the Examiner disclose the above emphasized limitation of independent claim 23, the Applicant respectfully submits that independent claim 23 is novel, non-obvious and in condition for allowance over the references cited by the Examiner.

Application No. 10/715,490  
Reply to Office Action of May 20, 2005

Patent  
Attorney Docket No. 86493-2

iii) Rejection under Burress in view of Nelson in view of Massey in further view of Bergen et al.

In the Office Action, the Examiner has rejected claim 22 under 35 USC §103(a) as being unpatentable over Burress in view of Nelson in view of Massey in further view of U.S. Patent Publication 2002/0175831 (hereafter referred to as Bergen et al.).

For the reasons presented below, the Applicant respectfully traverses the Examiner's rejection, and submits that claim 22 is in allowable form, as it currently stands.

Claim 22

Claim 22 is dependent upon independent claim 11, and as such incorporates by reference the following limitation which has already been found to be absent from Burress, Nelson and Massey.

**a solar powered control system suitable for receiving wireless signals for causing the activation of said drive system.**

The Applicant further submits that this limitation is also absent from Bergen et al. While Bergen et al. does disclose solar powered sensors, nowhere does Bergen et al. disclose a solar powered control system. In Bergen et al., it is the microcontroller and wireless modem that are operative for receiving wireless signals for causing the activation of the signalling devices. Nowhere is it disclosed that the microcontroller and wireless modem are solar powered. In fact, as specified on page 10, paragraph 119, the microcontroller receives power from a battery. As such, Bergen et al. does not disclose the above emphasized limitation of Independent claim 11.

**BEST AVAILABLE COPY**

**Application No. 10/715,490**  
**Reply to Office Action of May 20, 2005**

**Patent**  
**Attorney Docket No. 88493-2**

Since none of the references cited by the Examiner disclose the above limitation of independent claim 11, and since claim 22 incorporates this limitation by reference, the Applicant respectfully submits that the Examiner has failed to establish a case of prima facie obviousness as per §2142 of the MPEP on the basis that the references cited do not teach all of the limitations of the claim when taken either individually or in combination. Accordingly, the Examiner is respectfully requested to withdraw his rejection to dependent claim 22.

Application No. 10/715,490  
Reply to Office Action of May 20, 2005

Patent  
Attorney Docket No. 86493-2

### III. CONCLUSION

In view of the above, it is respectfully submitted that claims 1-6, 8-19, 22-23 and 25-30 are in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance of claims 1-6, 8-19, 22-23 and 25-30 at an early date is solicited.

If the claims of the application are not considered to be in full condition for allowance, for any reason, the Applicant respectfully requests the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims or in making constructive suggestions so that the application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,

  
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